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ORIGINAL ARTICLES.

XANTHELASMA TUBEROSUM OR MOLLUSCUM
CONTAGIOSUM?

BY ADOLF ALT, M.D., ST. LOUIS, MO.

[With Micro-Photographs.]

In Vol. VII of the *Archives of Ophthalmology and Otology* (page 366), under No. XVI of a series of contributions to the pathological anatomy of the human eye, I published an article on "Xanthelasma Tuberosum Palpebræ."

The characteristic changes found in four such tumors I then described as follows: "The epithelial covering of the tumors is in all cases thicker than normal. In one case it is perfectly transformed into horny scales. The subcutaneous connective tissue, which is also considerably thicker than normal, consists of very coarse fibres and has very few blood-vessels. Between the fibres there is a considerable number of cells filled with fine molecules of a yellowish brown pigment and mostly having several offsets. The orifices of the sebaceous glands seem to be all obliterated.

"The main part of the four tumors is composed of large, vesicle-like, round and oval cells with an oval nucleus and several nucleoli. Their cell-body can not be tinted by any of the common staining materials, the nucleus assumes only a very light, the nucleolus a darker color. The cells, therefore, appear akin to fat-cells and colloid bodies. I consider them

essentially the same and am inclined to believe that they are the metamorphosed epithelial cells of the sebaceous glands. These cells are divided into clusters of a varying but mostly of a round shape by bands of tough connective tissue, which show no fatty degeneration, as has been described by some authors."

When I reported these researches the literature on this subject was but very scant and it does not seem to have grown very much since, at least in ophthalmic literature. Most textbooks mention only the clinical aspect of xanthelasma of the lids and a few speak of a fatty degeneration of the subcutaneous tissue as the cause of the clinical appearance.

I have since excised and examined two more such tumors, which were situated, in the characteristic manner, on the nasal side of the upper lids (both in females) and have found the same degeneration of the epithelial cells, which I still consider to be those of sebaceous glands. I may add to the foregoing description that the lobules into which the tumor is divided by connective tissue show that the degeneration of the epithelia is progressed farthest in their interior, while the peripheral cells may still appear normal. Furthermore, that the nucleus, during the degenerative process, is more and more pushed aside toward the periphery and that later on no nucleus is found. Where the cells are perfectly degenerated, the intercellular substance alone takes on the stain. (See Figs. 1 and 2. These photographs were taken from carmine-stained section made in 1877).

In the *Archiv fuer Augenheilkunde*, Vol. XXXIII, page 302, (German edition of the *Archives of Ophthalmology*), appears an excellent paper by Dr. Muetze, from the Eye Clinic at Marburg, entitled "A Contribution to the Knowledge of Molluscum Contagiosum of the Lids." This paper is accompanied by two very beautiful illustrations, from the description of which, I copy the following:

"Entering the tumor from without inward we see first several layers of normal surface epithelium which, however, loses its character more and more in the direction toward the centre of the tumor. The several cells, at first blue (stained with borax methylene blue) and regularly arranged, are now more irregular and of a lighter tint, except their nuclei which are stained normally and seem to be pressed toward the periphery.

The cells are larger and of varying shape. The nearer the centre, the larger and lighter they are; the nuclei remain visible in the periphery and are sickle-shaped. Finally in the secretory duct they lie in the intercellular substance perfectly unstained and of oval shape."

And again: "(Hæmatoxyline-Eosine). The lobule of the tumor has several layers of perfectly normal surface epithelium, its protoplasma stained light rose, the nuclei dark blue. In some of the cells farther inward, the protoplasma is stained darker on one side of the nucleus and granular. The nucleus is eccentric, as if pressed aside by the darker substance. In the cells further in, the protoplasma is still more degenerated. The cells are enlarged, their protoplasma is partly broken up into small round masses while it is still normal in the periphery. The nuclei are pressed still further toward the periphery, the nucleoli plainly visible. Further on the cells appear like large vesicles, their protoplasma is totally degenerated and forms large round lumps. Their nuclei are sickle-shaped and have reached the periphery. * * * In the next layers of cells the nuclei appear as dark peripheral stripes and finally they are no longer visible, etc."

Dr. Muetze kindly gave me some of his sections for study and I have photographed one of these stained with hæmatoxyline (and not fully decolorized) which is seen in Fig. 3.

From the description of the histological conditions in my cases of xanthelasma and in his cases of molluscum and from the illustrations, there can be no doubt, but that as concerns their histological elements, the tumors examined by us are absolutely identical. There is the same lobulated arrangement, there is the same degenerative process in the epithelial cells constituting the tumors, changing them to large vesicle-like bodies without nucleus and which take up no staining material.

To be sure, the clinical and macroscopical appearance of the tumors, as described by us, is not alike, and I certainly do not believe that the clinical diagnosis in any of the cases was incorrect. It would, then, appear from the foregoing, that certain forms of newformation in the lids which we clinically differentiate as xanthelasma and molluscum may appear identical in their histological structure. Molluscum contagiosum is probably not frequent in this country, at least, I have never

seen a case. Xanthelasma is not rare and once in a while a female patient will ask to have such a tumor removed. It will, therefore, be a comparatively easy matter to inquire further into the histology of xanthelasma. Further studies concerning the histology of molluscum contagiosum will be more difficult to make on account of the scarcity of the material, but they seem to be very desirable.

DEFECTIVE COQUILLE GLASSES.—A FREQUENT CAUSE OF ADDITIONAL IRRITATION TO WEAK AND INFLAMED EYES.¹

BY S. D. RISLEY, M.D.,

ATTENDING SURGEON AT THE WILLS EYE HOSPITAL, PHILADELPHIA; PROFESSOR OF DISEASES OF THE EYE, PHILADELPHIA POLYCLINIC.

MR. PRESIDENT, AND FELLOWS OF THE COLLEGE:—For many years I have rejected the coquille smoked glasses as found in the market, because of their irregular curvature, and the frequent presence of small blisters in the glasses, or lines across their surface. The importance of these defects as a cause of continued irritation when used for protection from strong light, for sensitive and inflamed eyes, under treatment by mydriatics, was forcibly pressed upon my attention again within a few days.

A young lady was instilling a mydriatic for the correction of a refractive error. She was asthenopic in consequence of a hypermetropic astigmatism associated with a relative insufficiency of her interni, and complained that her smoked glasses aggravated her distress.

The optician had supplied her with smoked coquilles which proved to be lenses. The *right* glass was as follows: —.50 c. ax. 90° \subset prism 1°. Base at 30°. The error of refraction in the right eye was corrected by +.50 s. \subset +.50 c. ax. 90°. It will be observed that the —.50 c. in her smoked

¹Read in the Ophthalmological Section of the College of Physicians, Philadelphia.

glass raised the hypermetropia in the horizontal meridian to 1.50D. The left glass was — .37 c. ax. 45° \bigcirc prism 1° ; base at 150° . The error of refraction in this eye was also corrected by + .50 s. \bigcirc + .50 c. ax. 90° . It is obvious that these glasses must of necessity have added to her discomfort, since not only was the refraction error increased by them, but the relatively weak interni were loaded up by the prisms with their bases outward and upward.

I then requested Mr. Bonschur of the firm of Bonschur & Holmes, Opticians, to carefully measure for me, a dozen pairs of these coquille glasses sent to him in the original package from the manufacturers.

The following is the result reported :

- (1) R., — .25 s. \bigcirc pr. 1° base in.
L., — .37 s. \bigcirc pr. 1° base in.
- (2) R., — .75 s. \bigcirc — .50 c. ax. 120° \bigcirc pr. 1° base up.
L., — .50 s. \bigcirc — .37 c. ax. 135° \bigcirc pr. $.75^{\circ}$ base up.
- (3) R., — .25 s. \bigcirc — .25 c. ax. 40° .
L., — .37 c. ax. 140° .
- (4) R., + .25 s. \bigcirc + .25 c. ax. 70° \bigcirc pr. 1° base in.
L., + .25 s. \bigcirc pr. 1° base in.
- (5) R., — .25 s. \bigcirc — .25 c. ax. 90° \bigcirc $1\frac{1}{2}$ pr. base out \bigcirc
1.50 $^{\circ}$ pr. base up.
L., — .50 c. ax. 180° \bigcirc pr. 1° base up.
- (6) R., — .37 s. \bigcirc pr. 1° base out \bigcirc $1\frac{1}{2}$ pr. base down.
L., — .25 s. \bigcirc — .37 c. ax. 25° \bigcirc pr. 1° base 133° .
- (7) R., — .25 s. \bigcirc $1\frac{1}{2}$ base out.
L., — .50 c. ax. 90° \bigcirc pr. 1° base 115° .
- (8) R., — .25 \bigcirc — .25 c. ax. 90° badly scarred line
through centre at 75° .
L., — .25 \bigcirc — .25 c. ax. 75° \bigcirc 1° base out.
- (9) R., — .25 c. ax. 30° badly marred surface.
L., — .50 c. ax. 165° \bigcirc pr. $1\frac{1}{2}$ base out.
- (10) R., — .37 s. \bigcirc $.75^{\circ}$ pr. base out.
L., — .37 s. \bigcirc $.75^{\circ}$ pr. base in.
- (11) R., — .37 s.
L., — .25 s.
- (12) R., — .37 s. \bigcirc $.75^{\circ}$ pr. base in.
L., — .25 s. \bigcirc 1° pr. base up.

It will be observed that the package did not contain a sin-

gle neutral glass. Care was exercised to determine the refraction of the central part of the glass only.

A second dozen furnished by the Fox Optical Co. were measured by my assistant, Dr. Murphy, with the same general result; all of them proving to be either concave cylinders or sphero-cylinders, most of them being also prisms, and many of them marred by irregular lines across the surface of the glass.

It should be noted that these were not selected because of their defects, but were examined from the original packages containing a dozen each, as furnished wholesale by the manufacturers. Any careful inspection will show furthermore that they were no worse than the average smoked glasses furnished by the optician. It is obvious that such defects must prove an additional source of irritation to sensitive and inflamed eyes, and should be abandoned in practice, unless proved to be practically neutral in every case.

The only way to secure this is to have them carefully ground with parallel concave and convex spherical surfaces. The very slight refraction caused by such glasses may be disregarded, but their cost is practically prohibitive. Plane glasses with parallel surfaces should be employed instead. They have the added advantage, when mounted as spectacles, of falling readily between the correcting glasses and the eyes, so that they fit closely under the superior orbital rim, and thus exclude the sky and side lights more effectively than do the coquille glasses when worn in front of the correcting lens.

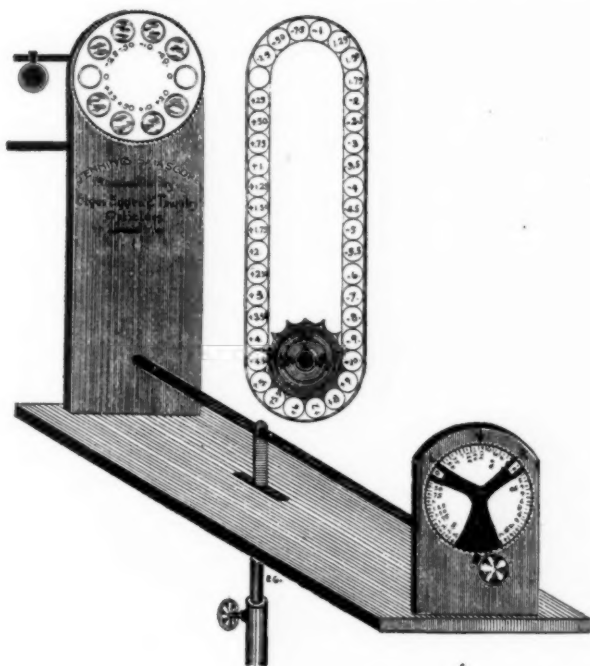
Care should be exercised to determine their parallel surfaces, and thus avoid the prismatic effect.

AN IMPROVED SKIASCOPE.

BY J. ELLIS JENNINGS, M.D., ST. LOUIS, MO.

Skiascopy or the shadow test is now recognized as the most valuable objective test for the estimation of errors of refraction. Its findings are so accurate and so much more rapidly attained than by the old method with trial lenses that

it has become deservedly popular with ophthalmologists. When, however, this method is used repeatedly each day the surgeon is apt to rebel against the loss of time and the fatigue occasioned by the constant change of lenses from box to trial frame. The skiascope here presented is designed to meet these objections and will be found a valuable aid to those who use skiascopy in their refractive work. The mechanism of the instrument is simple and was suggested to the writer by that of Morton's ophthalmoscope. It consists of thirty-nine lenses



inclosed in an endless groove and propelled by a strong driving-wheel situated at the lower end of the frame. A small rod runs the length of the table and is connected at one end with the driving-wheel and at the other with a small wheel within easy reach of the operator's hand. At the surgeon's end of the table and facing him, is a disc on which at a certain aperture (marked L or R according to which eye is under examination) is indicated the lens presented at the light hole. The red numbers represent convex and the white concave lenses. The lenses range from .25 to 9. D. plus and from .25 to 10. D.

minus. In addition to the lenses just mentioned are eight others, .25, .50, 10. and 20. D. plus and minus, set in a separate disc, any one of which can be put in front of the sight-hole without rotating the whole series of convex or concave lenses. By means of this extra disc we can make combinations from .25 to 29. D. plus and from .25 to 30. D. minus.

In front of each sight-hole is placed a cell marked in degrees to hold cylinders (not shown in drawing). Attached to the back of the upright frame by means of a hinge is a chin rest and a movable blinder both of which swing to right or left as may be desired. The whole is mounted on a strong stand which can be raised or lowered to suit the requirements of each patient.

The essential advantages of this skiascope are as follows:

1. It saves time and fatigue in changing lenses.
2. It is under the control of the operator and indicates the lens in front of the sight-hole without his getting up.
3. The mechanism is simple and durable.
4. There are no shafts, uprights and indicators to obstruct the view of the operator.
5. It is only under exceptional circumstances that it is necessary to use the disc containing the extra lenses.
6. There is only one indicator and one wheel to turn.
7. Its handsome appearance and moderate price.

This skiascope is made by Elgas, Eggert & Thursby, Opticians, 520 Olive Street, St. Louis, Mo.

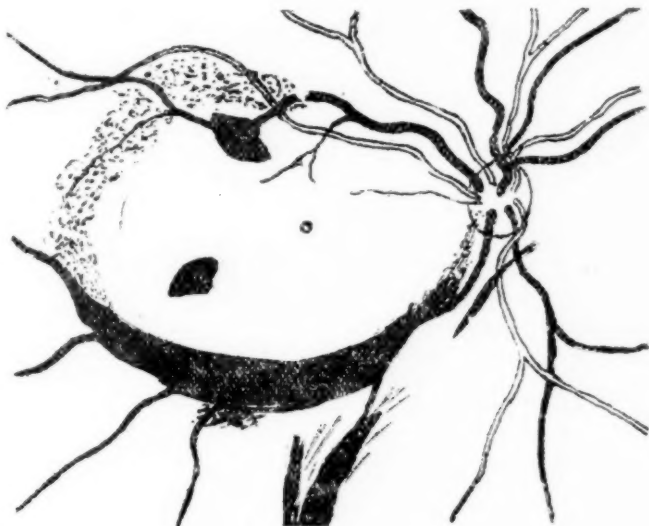
CLINICAL MEMORANDA.

By J. ELLIS JENNINGS, M.D.,

OF ST. LOUIS, MO

A CASE OF SUBHYALOID (?) RETINAL HÆMORRHAGES.

Mrs. C. X., colored, aged 27, came to Prof. Alt's clinic October 22, 1896, complaining of a red blur over the right eye. Her sight had been good until the previous night when, after intercourse with her husband, she noticed a red mist before the eye. The next morning she could see two red spots, which, by the afternoon, looked darker and not so large.



Right Eye. Sub-Hyaloid (?) Hæmorrhages.

The patient is rather slight, weighs 100 pounds, and is enjoying good health. Six years ago had rheumatism and two years back had an attack of la grippe. The heart and kidneys are normal.

L. V., $\frac{5}{V}$; R. V., $\frac{5}{LX}$. There is no scotoma at the macula but at several points close to it colors are recognized with difficulty.

Ophthalmoscopically, the fundus of the left eye appears normal. In the right eye the vitreous is found to be disorganized and filled with fine floating opacities. When the patient looks down a large blood clot is seen which, while moving about, appears to be anchored far forward in the ciliary region. A portion of this blood clot is shown in the lower part of the drawing. Below and close to the disc in the vitreous is a long narrow blood clot which is also held at one end and somewhat resembles a persistent hyaloid artery. Starting at the disc and following the course of the lower temporal vein is a very large hæmorrhage which covers the vessels, and probably lies between the internal limiting membrane of the retina and the hyaloid membrane. Two small but dense hæmorrhages are seen, one down and out from the yellow spot, the other up and out lying on the superior temporal vein. A slight effusion of blood connects the superior and inferior temporal veins thus almost completing a circle of hæmorrhage around the yellow spot.

COLOBOMA OF IRIS AND CHOROID.

Miss A. S., aged 7, was seen at the Mullanphy Hospital by Dr. S. Pollak and myself October 10, 1896. Her mother stated that shortly after the birth of the child she had noticed a black spot on the right eye and that the child's sight had never been good.

Mrs. S. has had seven children and claims that all but the patient have had good eyes.

V., O. D. $\frac{5}{LX} + 3.50$ cyl. ax. $180^\circ = \frac{5}{IX} -$.

V., O. S. $\frac{5}{LX} - 0.75$ sph. $\odot - 2.50$ cyl. ax. $55^\circ = \frac{5}{XII}$.

The eyes appear rather small, the diameter of the iris being only 9 m.m. In the right eye there is a coloboma of the iris extending downward and slightly inward to the ciliary body (see Fig. 1). In the pupillary area and in the anterior portion of the lens is a thin pear-shaped opacity. With the ophthalmoscope a very large coloboma of the choroid is seen, which includes the optic nerve and extends downward and outward, as shown in the drawing, as far as the eye can follow.

The optic disc appears sunken and to the nasal side is a large patch of pigment. The vessels running to the normal

portions of the fundus are as usual, but those running over the coloboma are small branches of the main trunks which take on

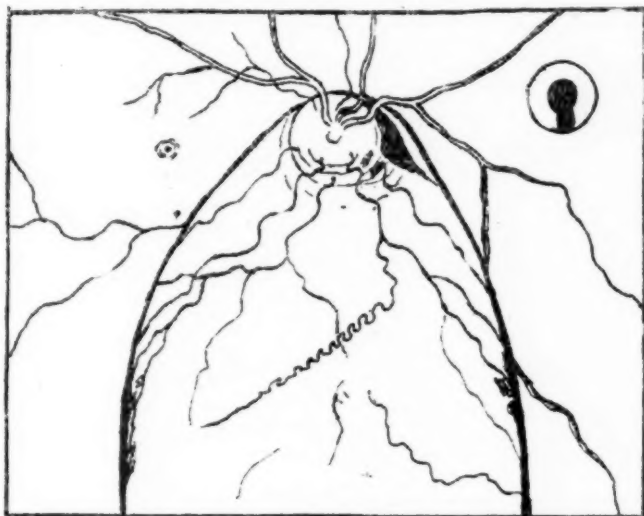


FIG. 1.—Right Eye. Coloboma of Iris and Choroid.

all sorts of twistings and disappear at the edge of the coloboma. In the left eye the iris is complete with the exceptions of a slight nick at the lower edge of the pupil and from there

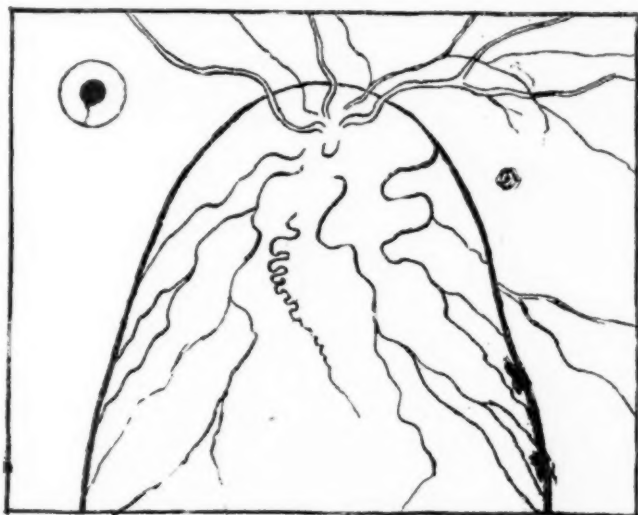


FIG. 2.—Left Eye. Coloboma of Choroid.

down and inward a shallow groove in the anterior layers of the iris. Well down below the pupillary border of the iris is a dense spike-shaped opacity in the anterior portion of the lens. The coloboma of the choroid is even more extensive than that in the right eye but in other respects is similar. (See Fig. 2).

WILL ATROPINE PRODUCE A CONVULSION IN AN EPILEPTIC?

BY JAMES THORINGTON, M.D., PHILADELPHIA, PA.,

ADJUNCT PROFESSOR DISEASES OF THE EYE, PHILADELPHIA POLYCLINIC, ETC.

Miss Bessie B., white, aged 8, florid complexion and well nourished was referred to me May 30, 1896, by the family physician with the following history: At two years of age, when cutting teeth, had three or four severe convulsions and was very ill. From this time was in moderate health until four years of age when, after eating dumplings, was taken with a convulsion and has been having convulsions—"nervous spells"—irregularly ever since, the last one being May 23. Attacks are always preceded by a premonition, as she calls out for help and then falls unconscious, frothing at the mouth, quivering and rigid, head jerking to side and eyes rolling. Never bit her tongue, or had an attack during the night. After the "spell," is very quiet and languid.

No family history of hysteria, epilepsy, insanity or other neurosis. Other children healthy.

Mother states that Bessie had had "cross eye" and "rolling eyes" ever since the convulsion at four years of age, and not before. Has also noticed that her vision is poor.

Ocular condition of patient:

O. D. V.= $\frac{5}{XXV}$? P. p. Type 1. D. = 8 c.m. uncertain.

O. S. V.= $\frac{5}{XXV}$? P. p. Type 1. D. = 8 c.m. uncertain.

Can not fix with both eyes. Nystagmus mixtus. When right eye fixes the left is turned in and when the left fixes the right turns up and out. Pupils round $3\frac{1}{2}$ m.m. Iridis equally and freely mobile to light and accommodation. Ophthalmoscope shows O. D. media clear, disc large, oval axis 90° , very

pale and few capillaries made out. No distinct cupping, choroid ring all around nerve. Veins full, arteries one-half the size of veins and appear contracted. Choroidal circulation noted in periphery of eye ground. Refraction compd. H.As. O. S., same ophthalmoscopic changes noted. Fields unsatisfactory on account of age and restlessness of patient.

Worsted show incomplete color-sense. The diagnosis made was double optic atrophy, which, together with the epilepsy, was no doubt the result of a meningitis at two years of age.

The treatment suggested was increasing doses of the saturated solution of iodide and five-grain doses of bromide three times a day. July 29. Iodism having developed the iodide was gradually diminished and finally increasing doses of nux vomica substituted. August 24. Is taking twenty drops of nux vomica and is in the best of health. Has not had a convulsion for four months, the longest time she has ever gone without one. Previous seizures being at most one month apart.

To aid in finding the exact refractive error, atropine gr. j to 3 ij was ordered, one drop in each eye three times a day. Noticing that the explained effects of the drops were causing anxiety, I remarked to the mother that if Bessie should have a "spell" during their use, she should not censure me as I never knew of such an effect. However, in forty-eight hours the patient returned with the statement of having had a mild attack (slight loss of consciousness) after two instillations of the drops. Subsequent use produced no ill effects. Refraction (skiascopic) gives the same correcting glass for each eye.

+ 1.00 sph. \ominus + 0.50 cyl. axis $90^\circ = \frac{5}{XII}$ " ? which were ordered less 0.25 D. for constant use. One month later, patient doing nicely and had no more attacks.

In summing up, the question arises, will atropia, as used in this case, produce a convulsion in a an epileptic? Thus far in his search through the literature the writer has been unable to find any confirmation of this point and in a late correspondence on this subject with Dr. L. Pierce Clark, of the Craig Colony, he expressed the writer's opinion as told the patient's mother that the occurrence of the seizure at the time of using the cycloplegic, was not from the drops but was a coincidence.

SOCIETY PROCEEDINGS.

SIXTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

SECTION OF OPHTHALMOLOGY.

DAVID LITTLE, M.D., F.R.C.S.E., PRESIDENT.

[Abstract from Report of British Medical Journal.—J. E. J.]

Cases Illustrative of Interesting Morbid Changes in the Retina. By HENRY JULER, F.R.C.S.

CASE I. *Retinal Apoplexy*.—W. D., aged 39, was admitted to St. Mary's Hospital 1892, and was found to be suffering from a dilated heart and secondary tricuspid and slight mitral incompetence at times. He also had acute nephritis, but this was considered to be consecutive to the cardiac trouble. He first noticed that the sight of his left eye was failing in July, 1892; it gradually grew dim without pain, and by September 4, when I saw him, he was quite blind with that eye. I found he had perception of light, but bad projection. There was no red reflex seen on retinoscopy, but a very dull maroon-red reflex could be seen with the ophthalmoscope. The tension was slightly raised and eserine drops were ordered. An intra-ocular growth was suspected, and he was advised to part with the eye. On September 23 acute glaucoma supervened and the eye was excised the same day. To my intense surprise, upon examining the eyeball no tumor was to be seen, but I found the retina mottled throughout with dark brown patches so numerous and confluent that scarcely any healthy-looking retina was visible. The vitreous humor appeared normal. These patches proved to be retinal hæmorrhages.

CASES II AND III.—The author gave history of one case of glioma endophyton and one of glioma exophyton, and summed up the points of difference as follows: In glioma endophyton there is no detachment of the retina, the main bulk of the tu-

mor is at the periphery, and its surface is irregular and shaggy. In the latter we find that the retina is invariably detached; that the retina near the disc is the usual starting point of the tumor, and its surface is smooth. With regard to these two cases it is interesting to note that the glioma endophyton was diagnosed in the first stage of the disease, but the glioma exophyton in the second. This may be owing to the anterior situation of the tumor in the former, also to the bulk of the growth which is greater than that in the latter, and yet secondary glaucoma did not ensue. The detachment of the retina in the exophytic variety no doubt precipitated glaucoma. The non-vascular focal deposits in the endophytic is a point of interest. They are nourished presumably by the aqueous humor. The shaggy filamentous surface of a glioma endophyton can not, it seems to me, be better explained than by supposing the tumor to be growing in different directions through the interstices of the spongy framework of the vitreous body.

CASE IV. Choroidal-retinal atrophy, the sequela of a chronic exudative choroido-retinitis due to acquired syphilis. Eye removed on account of an attack of acute glaucoma. The author remarks that the termination of these cases of choroido-retinitis after cicatricial changes have ensued is not uncommonly one of acute glaucoma. There appears to be no other remedy than that of removal of the offending organ. The use of formol will enable us to preserve these interesting specimens of choroidal and retinal diseases which have been, until the introduction of this hardening agent, so changed by Müller's fluid as to render them too indistinct for naked-eye recognition.

CASE V. *Peculiar Retinal Growth Simulating Glioma.*—In November, 1892, I was called into consultation to give my opinion on a case, a boy, aged $3\frac{1}{2}$ years. There was visible through the pupil a glistening white mass extending over a large area at the lower and outer part near the periphery a white projection was seen glistening white and with some color on its surface either due to vessels or to a hæmorrhage. I diagnosed glioma. There was also at the inner side of orbit, well within its cavity, a hard, apparently sessile, hemispherical mass, not very movable. This I took to be either a secondary deposit from the intra-ocular growth or a dermoid cyst. The eyeball was removed, and the orbital tumor proved to be a

dermoid cyst, and the intra-ocular neoplasm neither a glioma or so-called "pseudo-glioma," but in my opinion not a true tumor, but the result of a hæmorrhage into the retina prior to its detachment, as the appearance of the choroid indicates.

The Advantages of Mules' Operation of Evisceration with Insertion of Artificial Vitreous Over Enucleation of the Eyeballs.
By T. H. BECKERTON, M.R.C.S.

The following is a modification of Mules' table of the advantages of his operation over that of enucleation.

ENUCLEATION.	VERSUS	MULES' OPERATION.
1. Complete removal of globe and its contents.	1.	Retention of the framework of the eye.
2. No stump, therefore sunken eye.	2.	A firm round globe forming perfect support for artificial eye.
3. Disturbances of all muscular relations and arrest of movement.	3.	Perfect harmony of muscular movements retained.
4. A fixing staring eye attracting attention.	4.	Fitted with selected eye defies detection.
5. Patient shuns society.	5.	No qualms as to personal appearance.
6. Arrested development of orbit in cases of children.	6.	No interference with growth of orbit.

The author then mentions the points observed by him during the operation, to insure the best results:

1. To dissect the conjunctiva from its corneo-scleral attachment back to the equator. This allows the conjunctiva to be easily brought forward at the termination of the operation.

2. To remove the cornea by transfixing with a Beer's knife, and to complete the section with the same knife, taking care that the incision lies entirely in the sclerotic. I prefer Beer's knife for this purpose to a Graefe or scissors, because with it I can leave the margins cleaner cut.

3. After careful removal of the contents of the globe, to scrape well with a specially devised scoop, the ocular termination of the optic nerve. This, I believe, tends to arrest the bleeding from the central artery.

4. Arrest hæmorrhage, either by Carter's ingenious bulb inflator or by packing with sterilized gauze, or by free injection by means of Higginson's syringe into the globe of perchloride lotion 1 to 5000, but over this I waste no time, and even when bleeding continues, proceed:

5. To introduce the artificial vitreous, dividing the sclera vertically, horizontally, or obliquely, as circumstance may necessitate, and taking care that the glass ball when *in situ* enables the edges of the sclerotic to come into apposition without undue tension.

6. To apply the sutures (fine chromized catgut) carefully and closely, the projecting angles at each end of the wound being first cut off.

7. To stitch the conjunctiva carefully over all, at right angles to the sclerotic wound. During the whole of the procedure the parts are frequently syringed with the perchloride lotion.

Immediate Effects. Pain and Swelling.—In some cases not only is the swelling of the lids great, but there is general œdema of the temple and side of face, and chemosis of the conjunctiva may be so great as to protrude between the eyelids. Severity and duration of pain and swelling are controlled by applying constantly lint pads saturated with iced perchloride lotion with or without lead and opium. This cold application is most grateful to the patient, and reduces pain and swelling to a minimum; and to this simple proceeding more than any else, do I attribute the great success I have had in dealing with these cases. Patients are confined to bed on an average of ten days. I am never in a hurry to get patients up, for the less the eyeballs are moved the better. I do not bandage the good eye. My experience (forty cases) enable me to indorse every claim made for Mules' operation; which though more difficult to perform is equally safe, and leaves the patient with the healthy part of the eye undisturbed, preserves the power of movement and retains for him his natural appearance. Except in special cases enucleation is an unjustifiable operation, and one that sooner or later will sink into oblivion.

Mr. Juler said that when first practicing the operation he found the glass vitreous frequently escaped about the fourth or fifth day, after much pain, swelling and even suppuration. This he believed to be due mainly to the glass globe being too large.

A Discussion on Precision in Squint Operations.

I. DR. P. W. MAXWELL, of Dublin, read a valuable paper based on 179 cases of squint and made the following practical suggestions:

1. The angular measurement of squints is to be preferred to all others as being the most accurate. The angle gamma should also be measured, otherwise the exact reduction required can not be known. With young children who will not sit still at the perimeter, Priestley Smith's tape measurement may succeed.

2. The refraction and vision of each eye should be ascertained, and the immediate effect of glasses on the long and prox. angle, and on the vision, should be noted. If there is any doubt about the refraction atropine should be used.

3. Where the time can be spared, glasses of full correction should be ordered for constant use for about two months. If the patient can not relax for distance, atropine should be used till he can.

4. If after two months of glasses the squint, including angle gamma, is reduced below 8° , a more extended use of glasses should be tried, and orthoptic exercises employed. But if from 8° to 20° of squint remain, a single tenotomy should be performed with a more or less free division of side attachments. If the result is pretty near the full correction the patient should be seen for a few weeks at frequent intervals. The glasses being taken off or left on for even one day makes a difference in the final result.

When an operation is performed on one who has not previously worn glasses a too small result may be increased by their aid, but a too great result can not be remedied. But it is a matter of clinical observation that in a case where glasses have already produced their full effect, they will again, after operation, produce a further reduction. Therefore the patient who has worn glasses before operation has this advantage, that by continuing to wear them, by having their strength reduced or by stopping them altogether, he can have the operative effect increased or diminished.

5. No second operation should be performed for at least three weeks. If, after the first operation, 10° or more remain, a tenotomy on the other eye should be performed, and subsequently regulated by glasses.

As the average effects of two consecutive tenotomies and of a tenotomy and advancement are the same, it is a matter of taste which plan is adopted in squints between 20° and 25° . But where outward movement is restricted, I should, from

theoretical reasons as well as in deference to the clinical experience of others, prefer an advancement. Where the squint is above 25° , a tenotomy and more or less extensive advancement should be performed, for though two consecutive tenotomies might suffice, yet they might not. Any remaining squint, if between 8° and 20° , should be treated by a simple tenotomy, and if over 25° by tenotomy and advancement.

6. It is to be noted that these suggestions apply to cases that have worn glasses. If glasses have been worn we must be considerably more cautious.

7. The cases which wear glasses permanently seem to obtain a greater improvement in vision and on the whole to give the better ultimate results. But often in deference to the wishes of the patient or friends, we are urged to give them up after a time. This should only be allowed where the ametropia is slight, and the refraction of the two eyes does not differ by more than 1 D. On the other hand, glasses as a permanency are indicated where a convergence too small for operation remains, where the vision of one or both eyes is improved by them, and where the refraction of the two eyes differs by more than 1 D.

8. Sutures should be boiled before use, and should not be left in much more than a week. By causing inflammatory softening and then stretching of a new attachment they may, as I have shown, largely undo the benefit of an advancement.

II. PROF. LANDOLT, of Paris, said the squint operation is badly understood on account of the inaccurate knowledge not only of the anatomy and physiology of this motor apparatus of the eyes, but especially that of the nature of strabismus itself. Strabismus does not consist simply in the wrong direction of one eye, but in the disturbance of the co-ordination of the movements of both eyes, so strabotomy does not imply simply the setting an eye straight, but is the aid lent by the surgeon to Nature, in order to re-establish the harmony of movements. Etiology tells us that in non-paralytic strabismus both eyes are involved, the operation for squint must therefore be directed to both eyes, and must consist rather in the increase of power of the weak muscles, than in the weakening of the healthy muscles. As to the rules that many have attempted to lay down for the exact amount of advancement, they are rather illusory. It is not the surgeon who makes the precise

correction during the operation, it is Nature, in her efforts for binocular vision, who makes it afterwards.

A Discussion on Cataract Extraction.

G. A. BERRY, M.B., Edin., said that in most cases where the subject of extraction has been discussed, the question has been simple *versus* combined extraction. Comparatively few seem to consider the advisability of selecting cases for which one method may be more suitable than the other. If it were necessary to choose between the two operations one which should be put in practice in every case, I should unhesitatingly choose the operation with iridectomy. That operation, too, I should recommend to all whose experience of extracting for cataract is limited. In talking of making a selection, I mean selecting the cases in which one may attempt to get the greater advantages of the simple operation with the best chances of success. The method of performing simple extraction which has led me to alter my views as to its value, is one which, so far as I know, is due to Prof. Snellen. The incision is large, occupying half the circumference of the cornea. It lies in the apparent corneo-scleral margin, and is made with a large and broad conjunctival flap, the knife being carried for fully a quarter of an inch below the conjunctiva before cutting out after the section at the corneo-scleral margin is completed. The cystotome is introduced from the side, that is at the one end of the incision. The cornea is then pressed upon below the centre, so as to cause the large wound to gape considerably, and make the edges of the lens escape in front of the iris. A strong solution of pilocarpine is used immediately before operating. Needling is done a fortnight later. The large incision which has to be made in order to remove the lens easily and without injury to the iris is, perhaps, to some extent, a disadvantage. The site, however, at the corneo-scleral margin secures good apposition, and the large conjunctival flap provides well for the vitality of the cornea and for rapidity of healing.

F. RICHARDSON CROSS said he had long advocated the simple method in certain cases, and performed about equally frequently as with iridectomy.

DR. LITTLE, President of the Section, said that in most of his cataract operations he performed iridectomy. He carefully selected the cases for simple extraction. He agreed with Dr.

Berry, that the line of incision should be close to the sclero-corneal junction; if well made in that position prolapse of iris rarely occurred. Incisions, if too corneal, were liable to prolapses. He thought it was very important, not only to have the pupil round, but also free from all lens *débris*.

The Formation of Artificial Pupil by Extraocular Iridotomy. By J. B. LAWFORD, F.R.C.S.

The technique of the operation is as follows: A small corneal incision is made, with a triangular keratome, close to but not quite at the limbus corneæ, the knife carefully withdrawn to avoid a following prolapse of iris. A pair of fine curved iris forceps, without teeth, is then introduced and the iris gently grasped close to its pupillary border and withdrawn. It is then divided at right angles to the pupillary edge, and through about half its width, with a pair of iris scissors and afterwards carefully and gently returned to the anterior chamber. After tucking back the iris eserine drops may be applied. The eye is then tied up with a pad and bandage, and the patient kept perfectly quiet for twenty-four hours.

MR. THOS. H. BECKERTON remarked that it seemed to him that all the advantages of this operation were to be obtained by the ordinary operation of iridotomy, namely, corneal incision and the snipping off of a morsel of iris withdrawn by by means of a Tyrrell's hook, and in his hands this operation had never failed to secure the wished-for result. To squeeze a portion of the iris, produce a prolapse, incise the squeezed portion, and then replace the injured membrane as suggested by Mr. Lawford, was to his mind the reversal or the ordinary principles of surgery, and the adoption of a hazardous method in place of a very simple one.

The Effect of Nasal Obstruction on Accommodation. By P. W. MAXWELL, M.D., Edin., F.R.C.S.I.

For the last ten years I have observed how frequently the same patient seeks advice about his eyes and ears at the same time. On examining these cases more minutely it would appear that the eye symptom is almost invariably accommodative asthenopia, while the ear trouble is chronic catarrh. It is generally supposed that accommodative asthenopia, when once established, will remain as a permanent condition unless the

patient consents to use his eyes less or to wear glasses. But every one must have seen cases where the asthenopia subsides and the glasses are given up. In my experience this has happened with comparative frequency in the combined eye and ear cases to which I have referred. These patients received some nasal treatment. I have now come to the conclusion that asthenopes who frequently or habitually breathe by the mouth are more likely to be benefited by nasal treatment than are those in whom the nasal mucous membrane is quite as abnormal, but who can breathe freely through the nose.

DR. RAYNER BALLEN said that he could fully bear out Dr. Maxwell's statements as regards the association of asthenopia with nasal disease, but thought that nasal conditions were responsible for more than simple accommodative effects, and that amongst others they were frequently productive of myopia; and further, when nasal conditions were present, they could be diagnosed frequently from the condition of the fundus. There were two conditions which he had frequently found associated with nasal conditions; the one was the formation of posterior staphyloma towards the nasal side of the optic disc; the other was an "œdematous" condition of the optic disc as shown by slight swelling and blurring of the nasal side.

Treatment of Corneal Opacities by Electrolysis. By EDGAR STEPHENSON, M.D., Liverpool.

Opacities of the cornea, in which I include all those caused by keratitis, ulcer, or direct injury, are among the commonest, and at the same time the most intractable, of all eye complaints; and I do not think it is any exaggeration to say that, except in infants, and in the very slightest cases in childhood, the recognized treatment by stimulating ointments or any other of the ordinary means is a more or less disheartening failure.

Any treatment, therefore, which seems to hold out hopes of better results than are usually attained is certainly worth a trial; and I am sure that in electrolysis of the cornea we have a method which in some cases is brilliantly successful, and in all cases will do more good than years of treatment by yellow ointment.

The application of the galvanic current to the eye is, of

course, no new thing, and for the particular class of cases it was tried by Adler some years ago. He reports favorably of it, but used far too strong currents, and his method of application was faulty. It has been revived in America by Dr. Dennis, of the Erie Eye Hospital. The method that I employ is as follows: The current may be taken from the street main (constant variety) or may be taken from a good battery. The kathode is the active pole and is applied to the eye by means of a small silver rod with rounded end. The anode is of the ordinary sponge or disc type and may be applied to the cheek of the patient on the opposite side to the eye to be treated.

A pressure of $1\frac{1}{2}$ to 3 volts is sufficient to give the requisite result. This should be about $\frac{1}{4}$ M. A., and should never exceed $\frac{1}{2}$ M. A. The eye is cocaineized, and the patient, who should be lying down, is directed to hold the anode on the cheek. The current is then turned on and the lids being held apart by the fingers, the silver rod is rubbed lightly over the opacity for about one minute. The cornea should be kept moist. A slight frothing is generally seen in the track of the rod, but no pain, or at most a slight pricking sensation is felt. A little vaseline is put into the eye, and bandaging should be avoided. As a rule I apply treatment every other day.

By keeping to this small current and by not allowing the electrode to rest any length of time in the same spot, all damages to the cornea can be avoided.

The length of the course of treatment depends on the density and nature of the opacity. Faint nebulæ, which, however, have resisted ordinary treatment, are disposed of in six to ten applications. The denser opacities begin to clear at the edges, and it requires much perseverance before, in some cases, any great improvement in central vision is noticed. Very dense opacities are practically hopeless. After 15 to 20 applications of the current it is well to stop the treatment for a month or two as the cornea appears to get thin and soft and its curvature may be permanently altered.

MR. HOLMES SPICER had seen remarkable results from this kind of treatment, but they were all in the case of old opacities of long standing resulting from interstitial keratitis. The electrode he used had a small metallic cup at its end, to which a small globule of mercury was adherent. When this was applied to the cornea the mercury flattened out over a

more or less large area, and secured perfect apposition with the curve of the cornea. He had used a current of three-tenths of a milliampère twice a week; there was in some cases a considerable amount of irritation immediately following the application, and the cornea had a frosted look as if the mercury had been driven into its epithelium, but the irritation soon passed away.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED
KINGDOM.

THURSDAY, OCTOBER 15, 1896.

EDWARD NETTLESHIP, F.R.C.S., President, in the Chair.

Cataract Extraction in an Albino. By DR. ARTHUR SANDFORD (Cork).

Previous to operating he was anxious to find some reference indicating the possible influence of the congenital condition upon the success of the operation, but could find no similar case recorded. He extracted the left cataract with a narrow iridectomy, and the operation was satisfactory, as well as the subsequent progress of the case, except that for about ten days there was considerable hæmorrhage into the anterior chamber from the cut surface of the iris. This seemed to be connected with the morbid condition. Ergot and iron were administered. The patient recovered excellent vision with glasses ($V.=\frac{6}{18}$, reads 4 J.). In future he would omit iridectomy in similar cases.

THE PRESIDENT had operated on an albino; the case did very well surgically.

DR. DRAKE-BROCKMAN had operated on a Hindu albino; there were no complications, and the case did very well.

Oxygen Gas in Suppurative Conditions of the Cornea. By DR. SANDFORD (Cork).

He had had several cases of corneal and conjunctival

affections treated by hydrogen after the manner used so successfully by Dr. George Stoker in treatment of wounds and chronic ulcers. As to the ultimate value of this treatment in ophthalmic work, the time was too short and the cases too few to justify a definite opinion, but from what he had seen he was sanguine as to its usefulness. The class of cases in which marked benefit had been followed were superficial spreading ulcerative keratitis, ulcer of cornea with hypopyon, and mucopurulent conjunctivitis. The obvious advantage seemed to be that in cases of photophobia with discharge the patient was enabled to keep his eyes open, since light was excluded by the rubber cap containing the oxygen gas, and the eyeball was kept constantly in a pure atmosphere, which had been proved to be inimical to noxious germs, and favorable to healing processes. His object in bringing this subject forward thus early, whilst still in the experimental stage, was that some of those present might be induced to give the treatment a fair trial, and to record their experiences, favorable or otherwise.

MR. TREACHER COLLINS had had this treatment used in one case of ulcer of the cornea in a child. A rapid recovery followed, but this might have been due to other causes such as coming into the hospital.

Hereditary or Congenital Optic Atrophy and Allied Cases. By
MR. SIMEON SNELL (Sheffield).

He contributed 16 cases in which both eyes were affected. They ranged themselves into three groups: (1) This group consisted of a family in which 5 out of 8 children (3 sons and 2 daughters) were amblyopic. The patients when first seen were all adults, their ages ranging from 32 to 21. The condition in all was apparently congenital, and had undergone no alteration. The field of vision showed no peripheral contraction. Color blindness was present in 4 of the 5 cases, but a brother with normal sight was also color blind. (2) This group comprised 8 cases, namely, 2 brothers who became affected aged about 17; 2 brothers who became affected at about 20 and 24; a young man affected at 25, cousin to the last-named brothers; and in another family 2 brothers and 1 sister, the amblyopia in each case coming on at the age of 13 to 16. These cases belonged more strictly to the class described by Leber as hereditary optic atrophy. Headache was

a symptom, and epileptic attacks were present in two instances. A central scotoma was present in some of the cases, and in some also there was contraction of the periphery of the field. The exciting cause was not evident. In one vision failed shortly after marriage. (3) In this group were 3 brothers—smokers. A similar series had been related by Mr. Edgar Browne. The affection showed itself at different ages, namely, 52, 49, and 35. The cases were observed from eight to ten years ago, and the condition has remained permanent, the best having now $V.=\frac{5}{60}$ in each eye. In each case there is peripheral contraction of the field and a central scotoma.

THE PRESIDENT said that the distinctions between the different kinds of family blindness were very useful, and should be made the most of. All the cases were not hereditary optic atrophy as described by Leber; he had met with dyschromatopsia and amblyopia in several members of a family whose sight remained stationary; they could all see better in dim light.

DR. HABERSHON said that there were differences between some of the cases. Those which occurred in smokers in a family showed that the members of that family were not able to resist the action of tobacco. He thought that the cases in Mr. Snell's first group were more of the nature of retinitis pigmentosa with night blindness.

Herpes Ophthalmicus Occurring Shortly After Extraction of Cataract on the Same Side. By MR. SNELL (Sheffield).

The case was interesting from the fact that a severe attack of herpes ophthalmicus occurred in a woman, aged 75, seven days after extraction of cataract without iridectomy. In addition to the forehead, the side of the nose and upper eyelid were affected, but a slightly delayed recovery from the operation was the only effect on the eye.

Central Amblyopia as an Early Symptom in Tumor at the Chiasma. By MR. NETTLESHIP.

He had seen about ten cases in which failure of vision at or near the centre of the field in both eyes with little or no early ophthalmoscopic change occurred in women. Three of them turned out to be cases of ordinary tobacco amblyopia, and in one it seemed probable that alcohol was the cause.

Some five cases remained in which there was no reason to suspect a toxic cause, and in which later events made it probable that coarse intracranial disease had caused the visual failure. Three of these patients had died with cerebral symptoms, and in the fourth a post-mortem examination revealed a cystic tumor involving the chiasma, optic tracts, and other parts at the base of the brain. The loss of central field in the earlier stages was more abruptly defined, and less constant in position than in tobacco amblyopia, and the symmetry was less precise both in time and degree than in the latter disease. In a later stage there was mental failure, loss of memory, and irritability, with occasional headache and varying paralysis of one or more ocular muscles. The changes at the disc at most only amounted to pallor of the outer half until a late stage of the disease. If these cases be seen at an advanced stage the visual field will often have the form of a temporal hemianopia more or less. The case in which he had obtained a post-mortem examination was that of a lady whose sight had failed while she was suckling her fourth baby. She had a black spot before the left eye, and, later, before the right. There was a central scotoma of oval shape beginning just outside the fixation point, and extending about 20 degrees outwards. There was no peripheral loss of fields. Her vision and mental condition got worse, and she died after about three years. At the post-mortem examination the brain was a good deal flattened on both sides. At the base there was a large membranous sac filled with fluid lying on the sella turcica, and extending forwards to the cribriform plate of the ethmoid. The wall of the cyst was loosely attached to the hinder part of the frontal lobe, to the median part of the temporo-sphenoidal lobe, and to the hook of the uncinate convolution; it reached back as far as the middle of the pons. The chiasma was incorporated in the front wall of the cyst; the right optic tract could be traced back to the pulvinar; the commissural fibres could be followed a short distance towards the other side, as also the fibres which pass to the cerebrum. The left optic tract could not be found; it was so flattened as to be unrecognizable.

Card Specimens.

The following were shown: MR. TREACHER COLLINS:
"Disseminated White Patches in the Choroid with Cholesterin

Crystals on the Surface." MR. MARCUS GUNN: "Result of Iridectomy for Glaucoma."

PRELIMINARY PROGRAM OF THE SECTION
OF OPHTHALMOLOGY, PAN-AMERICAN
CONGRESS.

The following gentlemen have signified their intention of being present:

DR. B. C. FRYER, Kansas City, Mo.—"The Antiseptic Preparations of the Conjunctival Sac Prior to Operations Upon the Eyeball.

DR. C. W. TANGEMAN, Cincinnati, Ohio.—"The Necessity for Determining the Acuteness of Vision and the Color-Sense in Railway Employees."

DR. D. C. BRYANT, Omaha, Neb.—"Treatment of Burns of the Conjunctiva (Second Stages)."

DR. GEO. H. PRICE, Nashville, Tenn.—Title not sent.

DR. J. E. MIMREY, Topeka, Kan.—No paper.

DR. T. Y. SUTPHEN, Newark, N. J.

DR. F. B. TIFFANY (possibly), Kansas City, Mo.—"Comparative Anatomy and Histology of the Eye."

DR. ROBERT SATTLER, Cincinnati, Ohio. — "Malignant Disease of the Orbit."

ROBERT SATTLER, M.D.

OPHTHALMIC DIGEST.

BY J. ELLIS JENNINGS, M.D.,

OF ST. LOUIS, MO.

REMARKS ON OCULAR SYMPTOMS OF GENERAL
PARALYSIS OF THE INSANE, WITH SPECIAL
REFERENCE TO ITS CLINICAL GROUPINGS.
W. BEVAN LEWIS (*British Medical Journal*, May 2, 1896).

After considering the subject in an exhaustive manner, the author tabulates, for convenience of reference, those feat-

ures which mainly demarcate the five groups usually included under the category of general or progressive paralysis of the insane.

Group 1.—Paralytic mydriasis; a partial reflex iridoplegia (light). Increased myotatic irritability. Excessive facial tremor and speech troubles. Great optimism with profound dementia.

Group 2.—Mydriasis with associative iridoplegia rapidly passing into the cycloplegic form—an early symptom. Frequent myotatic excess but no contractures. Late speech troubles. Acute excitement with frequent convulsions. Very rapidly fatal course. (Preponderance of syphilitic history).

Group 3.—Spastic miosis; a complete reflex iridoplegia. Absent or greatly impaired knee-jerk. Failure of equilibration; locomotor ataxy, defective sensibility. Very defective articulation. Much optimism and excitement.

Group 4.—Late eye symptoms; paralytic mydriasis, a partial reflex iridoplegia (for light only). Ataxic paraplegia confined to lower extremities (arms do not participate). Great facial ataxy with extreme troubles of speech. Epileptiform seizures ushering in pronounced mental enfeeblement.

Group 5.—No oculo-motor symptoms beyond occasional inequality. No contractures, but notable myotatic excess. No disturbance of equilibration, locomotion or sensation. Speech troubles not pronounced. Epileptiform seizures very rare, but from the first progressive deepening dementia.

A CASE OF ACQUIRED REGULAR CORNEAL ASTIGMATISM. F. L. HENDERSON, M.D. (*Annals of Ophthalmology and Otology*, July, 1896).

Mr. C. C., aged 29, now an ensign in the United States Navy, took his first physical examination at Annapolis in September, 1883, at which time vision was O. D., $\frac{25}{xx}$; O. S., $\frac{25}{xx}$. He was subsequently examined with the following results:

April, 1884, O. D., $\frac{25}{xx}$; O. S., $\frac{30}{xx}$. April, 1885-6, O. D., $\frac{20}{xx}$; O. S., $\frac{20}{xx}$. April, 1887-9, O. D., $\frac{20}{xx}$; O. S., $\frac{30}{xx}$.

He enjoyed the good health incident to his profession and considered his sight perfect. One night at the theatre in 1895, he discovered, by inadvertently closing the right eye, that vision of the left eye was bad. He reported his condition to his commanding surgeon at once, and the result was a medi-

cal survey which reported December 28, 1895, as follows: Unfit for duty, disease, weak eyes. Right eye slightly myopic and astigmatic. Left eye, vision, $\frac{8}{xx}$ and not corrected by lenses.

February 6, 1896. I examined his eyes with the following results:

O. D., V., $\frac{15}{xx}$, with — sph. 0.50 D. = $\frac{16}{xii}$.

O. S., V., $\frac{15}{c}$, with — cyl. 1.75 D. ax. 15° = $\frac{16}{xv}$.

The only explanation of the present case that I can offer is that patient was employed for about six months of 1895 on "coast survey field work" and used a sextant for hours every day. While looking with the right eye he was in the habit of firmly contracting the orbicularis of the left, as the light on the water was too blinding to have it open or even partially relaxed, and it may be that the increased curvature of the cornea at meridian 105° causing an astigmatism of 1.75 D. was the result of continued pressure of the orbicularis combined with a slight absence of corneal resistance, which is presumed from the development of .50 D. of myopia in the right.

BOOKS AND PAMPHLETS.

SYSTEM OF DISEASES OF THE EYE. By American, British, Dutch, French, German and Spanish Authors. Edited by W. F. NORRIS, A.M., M.D., and CH. A. OLIVER, A.M., M.D. Vol. I, "Embryology, Anatomy and Physiology of the Eye." Twenty-three plates and 362 illustrations. Philadelphia: J. B. Lippincott Co. 1897.

This is the first collective work on ophthalmology in the English language, as far as we know, and is modelled somewhat after the great German collective work edited by Graefe and Saemisch. This first volume dedicated, so to speak, to the preliminary knowledge, necessary to understand what the future volumes will bring, is certainly of great credit to its authors, editors and publishers alike. We do not doubt, that the following will be of the same high standard and predict a great success to this work.

OPHTHALMIC OPERATIONS AS PRACTICED ON
ANIMALS' EYES. By CLARENCE A. VEASEY, A.M.,
M.D. With 56 illustrations. Philadelphia: Edwards &
Docke Co. 1896.

It was certainly a very happy idea which prompted the author to the publication of this little manual, as it seems to fill a real void. It is clearly and concisely written and will be a great help to every student, trying to perfect himself in the surgery of the eyeball by first practicing on animal's eyes. This excellent method of schooling one's hand and eye is only too often neglected. May the little book help to overcome this neglect!

OVER THE HOOKAH. THE TALES OF A TALKA-
TIVE DOCTOR. By G. F. LYDSTON, M.D. Profusely
illustrated. Sold by subscription only. Chicago: Fred.
Klein Publishing Co.

This is a collection of interesting, funny and blood-curdling stories referring to the experiences of the medical fraternity, intermingled with a great deal of practical philosophy. The Doctor is a thoroughly good story-teller and particularly well versed in the Irish and Negro dialects. The illustrations are very good.

NOUVEAUX ÉLÉMENTS D'OPHTHALMOLOGIE. By
H. TRUC and E. VALUDE. Second volume. With 108
illustrations. Paris: A. Maloine. 1896.

This volume completes this text-book of ophthalmology. It treats on the special pathology and therapeutics of the eye, including ophthalmic surgery. There is an interesting chapter on the geographic distribution of eye diseases, one on comparative and veterinary pathology, and one on medico-legal medicine.

ALT.

"The Javal Ophthalmometer and the Methods of Testing
its Accuracy." By F. W. Ellis, M.D,

PAMPHLETS.

"Notes on Lithium." By E. Sander, Ph.D., Ph.G.

"Dermoid Tumors of the Cornea." By A. R. Baker, M.D.

"Two Fatal Cases of Hæmaturia." By T. H. Manley, M.D.

"Notes on Inguino-Scrotal Cysts." By T. H. Manley, M.D.

"Syphilis of the Vital Organs." By H. A. Robbins, M.D.

"A New Curette and Evacuator." By E. D. St. Cyr, M.D.

"Acute Rheumatic Iritis, With Cases." By A. B. Deynard, M.D.

"Prevention of Ophthalmia Neonatorum." By Ch. Zimmermann, M.D.

"Lues Venerea and the Third Act of the Drama of Syphilis." By H. A. Robbins, M.D.

"Variations in the Clinical Course of Croupous Pneumonia." By G. Baumgarten, M.D.

"On the Treatment of Fractured Shafts of Bone in Children." By T. H. Manley, M.D.

"Procto-Colonoscopy and Its Possibilities. A New Method." By T. Ch. Martin, M.D.

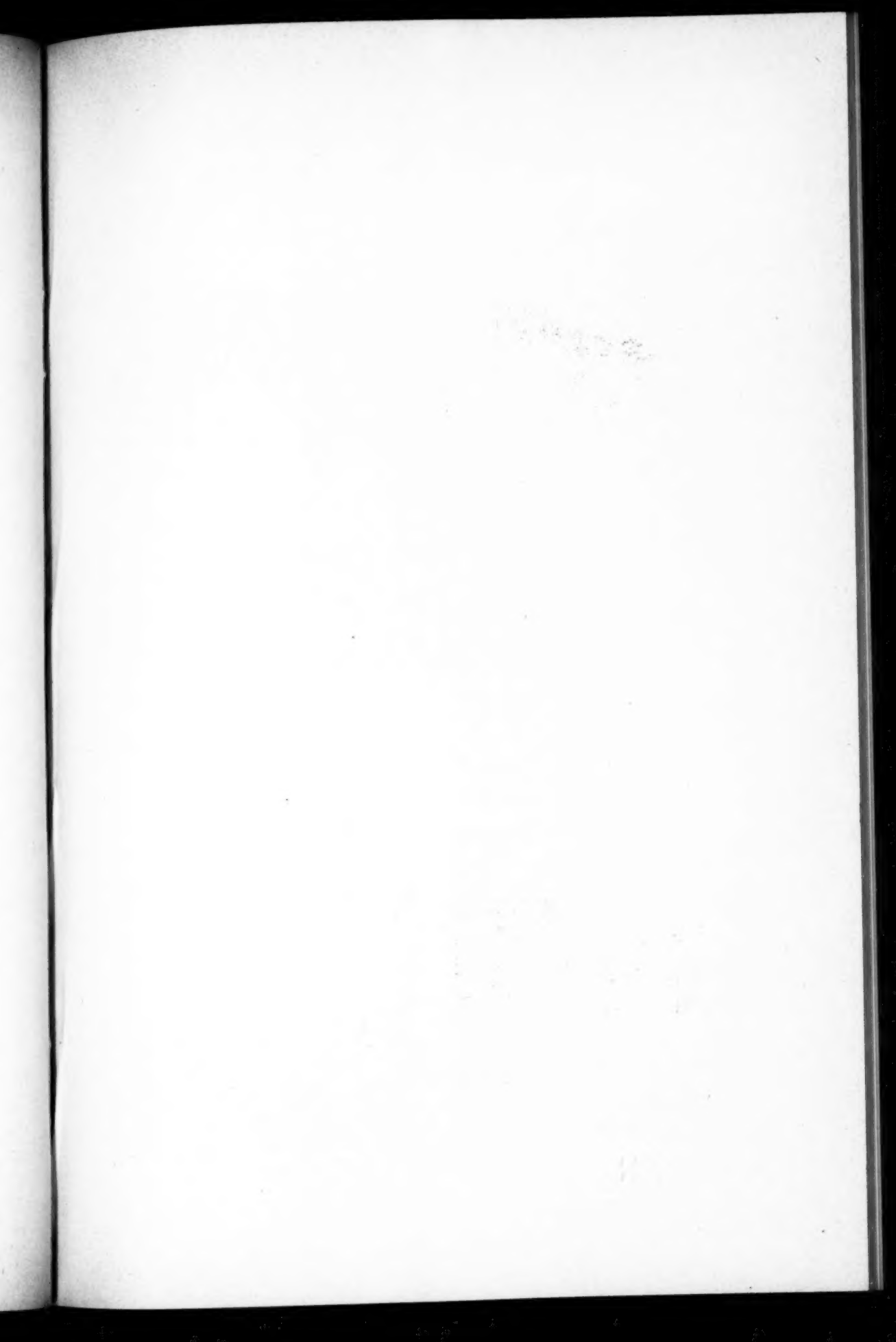
"Contribution to the Knowledge of Molluscum Contagiosum of the Lids." By Dr. Muetze.

"The Solvent Properties of the Buffalo Lithia Waters in Virginia." By G. H. Boyland, M.D.

"Transactions of the Seventh Annual Meeting of the Medical Society of the State of Washington." 1896.

"A Case of Traumatic Cardiac Neurosis. A Case of Simple Serous Recurrent Pleural Effusion: Its Final Outcome." By J. C. Mullhall, M.D.

"On Movements of the Eyelids Associated with Movements of the Jaws and with Lateral Movements of the Eyeballs." By H. Friedenwald, M.D.



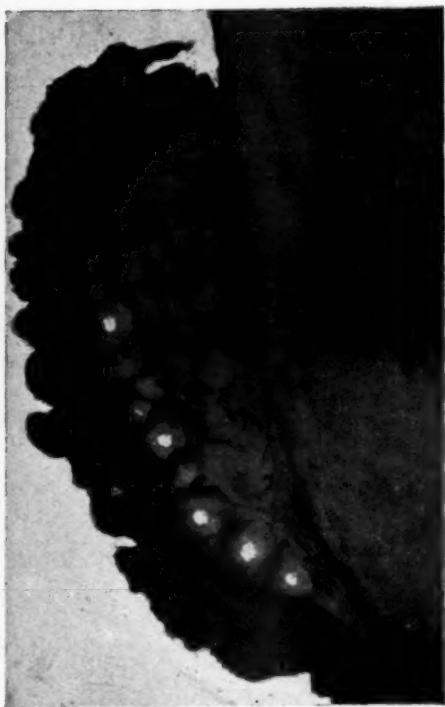


FIG. I.



FIG. II.



FIG. III.



FIG. IV.